

## **Prospects of ethanol production from sweet sorghum for energy security and environmental safety**

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**ABSTRACT :** There is a great interest around the world in exploring alternative fuel to reduce environmental pollution, save foreign exchange and improve energy security. Ethanol is an alternative fuel and promising substitute for petrol. Sweet sorghum is one of the important crops that can be used to produce ethanol at practical scales for rural communities and industries. The sugars obtained from the sugar-rich stems can be extracted and fermented to produce ethanol for uses such as a liquid fuel. Sweet sorghum, which can be grown under various climatic conditions, have been identified as a promising crop with the potential to provide for a wide spectrum of energy uses. Therefore, it is the promising and sustainable feedstock for fuel grade ethanol production. Ethanol production from sweet sorghum could be one of the potential fuels to meet the energy demand and energy self-sufficiency. Utilization of ethanol to reduce vehicular emissions is one of the potential options for clean environment as well solves the unemployment problem in rural India to a large extent.

**Key Words:** sweet sorghum, sugar, ethanol, environment and energy security.